

ABSTRACT

A storage and retrieval unit comprises a supporting carriage which is movable along a rack aisle on at least one substantially horizontal supporting rail by means of a drive. A vertically adjustable lifting platform is suspended from the supporting carriage via at least three traction means. In order to prevent the lifting platform from being laterally deflected or starting to oscillate during accelerations of the supporting carriage, a stabilising device is provided. The latter comprises at least three traction means fastened to the sides of the lifting platform which are opposite in the direction of travel. At least two traction means run to at least two fastening points arranged in the region of one end of the aisle; at least one further traction means runs to a fastening point arranged in the region of the other end of the aisle. The effective length of each traction means between the lifting platform and the fastening point can be changed by a drive. The latter is controlled by a control system in such a way that all the traction means are taut in each desired position of the lifting platform.